

### **REMARKS**

Claims 1-24 are pending in the application, with claims 1, 9, 12, 17 and 20 being the independent claims. For the convenience of the Examiner, all amendments made to the specification based on both objections and rejections are contained in the substitute specification attached to this paper.

Applicant respectfully traverses the Examiner's rejection of each independent and dependent claim pending in the application.

#### ***Objection to the Drawings under CFR 1.84(p)(5)***

The drawings are objected to under CFR 1.84(p)(5) for including the reference character 1100 in Figure 11 which is not mentioned in the description. The attached substitute specification contains a description of Figure 11 amended to include reference character 1100. Reference character 1100 is described as "screen shot 1100, which illustrates an exemplary screen shot of architecture view 206 according to the invention." Reference character 1100 is now mentioned in the description. Applicant respectfully requests the objection to the drawings under CFR 1.84(p)(5) be withdrawn.

#### ***Objection to the Drawings under CFR 1.84(a)***

The drawings are objected to under CFR 1.84(a) for failing to show the additional description of element 1001 in Figure 10 as described in the specification on page 18, paragraph 68. Figure 10 has been amended to add elements 1007 and 1008. The additional description from paragraph 68 belongs to new elements 1007 and 1008, as reflected in the amendments made to paragraph 68 and 69 in the attached substitute specification. Figure 10 now shows all of the details of the description of Figure 10 from the specification. Applicant respectfully requests the objection to the drawings under CFR 1.84(a) be withdrawn.

***Objection to the Disclosure***

The specification is objected to for containing informalities. Each of the typographical errors listed on page 4 of the Office Action has been addressed in amendments to the specification contained in the substitute specification attached to this paper. Applicant respectfully requests that the objection to the disclosure be withdrawn.

***Objection to the Claims***

The claims are objected for containing informalities. Claims 8, 12, 16 and 20 have been amended to correct the typographical errors contained therein. Applicant respectfully requests that the objection to the claims be withdrawn.

***Rejections under 35 U.S.C. § 112***

Claims 12-24 are rejected under 35 U.S.C. 112(b) for being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant respectfully traverses the rejections.

Claim 12 has been amended to recite “each hierarchical model,” in place of “the hierarchical models.” The step from claim 12 of “generating a hierarchical model for each root node” may result in the generation of more than one hierarchical model if there is more than one root node. Subsequent steps from claim 12 may be performed on each of these hierarchical models. Thus, there is antecedent basis for the phrase “each hierarchical model” in claim 12. Amended claim 12 is therefore allowable over the rejection for lack of antecedent basis. Claims 13-16 are allowable over the rejection for lack of antecedent basis for at least being dependant on claim 12.

Claim 20 has been amended to recite “each hierarchical model” in place of “the hierarchical models.” The antecedent basis in claim 20 for “each hierarchical model” is similar to the antecedent basis in claim 12. Amended claim 20 is therefore allowable over the rejection for lack of antecedent bases for the same reasons as claim 12, as stated above. Claims 21-24 are allowable over the rejection for lack of antecedent basis for at least being dependent on claim 20.

Claim 17 has been amended to recite “perform at least one of generate and select at least one model appropriate for the software application, the at least one model having high-level abstractions.” This amendment is consistent with both the proposed amendment on page 6 of the Office Action and the form of claim 17. Amended claim 17 is therefore allowable over the rejection for being unclear. Claims 18 and 19 are allowable over the rejection for being unclear for at least being dependent on claim 17.

Claim 19 has been amended to recite “perform at least one of create a new model, edit an existing model, and automatically generate a model.” This amendment is consistent with both the proposed amendment on page 7 of the Office Action and form of claim 19. Amended claim 19 is therefore allowable over the rejection for being unclear.

Claim 21 has been amended to “recite “each root node”, as per the proposed amendment on page 7 of the Office Action. Amended claim 21 is therefore allowable over the rejection for being unclear.

Claim 22 has been amended to recite “a computer readable memory,” as per the proposed amendment on page 7 of the Office Action. Amended claim 22 is therefore allowable over the rejection for being unclear.

***Rejections under 35 U.S.C. § 101***

Claims 1-8 and 17-24 are rejected under 35 U.S.C. 101 for being directed to non-statutory subject matter. Applicant respectfully traverses the rejections.

Claim 1 has been amended to recite in part:

a display device;

at least one processor;

a computer readable storage medium comprising instructions executable by the at least one processor, instructions comprising instructions for:

The display device, at least one processor, and computer readable storage make up a system. The instructions on the computer readable storage medium may be executed by the processor, and may utilize the display device. Claim 1 has also been amended to recite “a visualization system adapted

to present the profile data in terms of the high-level instances on the display device.” The act of presenting is performed on the display device, for example, a computer monitor. Amended claim 1 is directed to statutory subject matter, a system, including physical components and the tangible result of presentation on the display device, and is therefore allowable over the rejection for being directed to non-statutory subject matter.

Claims 2-8 are allowable over the rejection for being directed to non-statutory subject matter for at least being dependent on claim 1.

Claim 17 has been amended to recite “a computer readable medium.” A definition of a computer readable medium is contained within the substitute specification attached to this paper, along with examples of a computer readable medium. A computer readable medium may be any storage device used for storing data accessible by a computer. Data is stored onto the storage device, and then accessed from the storage device by the computer. Amended claim 17 is directed toward statutory subject matter, containing a computer readable medium on which data is stored and then accessed, and is therefore allowable over the rejection for being directed to non-statutory subject matter.

Claims 18-23 are allowable over the rejection for being directed to non-statutory subject matter for at least being dependent on claim 17.

***Rejections under 35 U.S.C. § 102***

Claims 1-4, 6, 8, 9, 11-17, 19 and 20-24 are rejected under 35 U.S.C. 102 as being anticipated by US Pat. No. 6,519,766 (Barritz). Applicant respectfully traverses these rejections.

Claim 1 recites “a data engine adapted to identify profile data corresponding to low-level instances of a software application.” Barritz does not disclose or suggest identifying profile data corresponding to low-level instances of a software application. In Barritz, the performance evaluation of a computer program is performed by gathering data on events, (Barritz, col. 4 lines 66-67, col. 5 lines 1-19). Events may be “low-level” or “high-level” events (Barritz, col. 5, lines 1-19). Examples of events provided in Barritz include read file, write file, and network I/O. Barritz appears to disclose compiling performance data based on the occurrence of various defined events

during the runtime of a program. The data gathered corresponds to the sequential execution logic of the program, i.e., the instructions executed by the processor in order to run the program.

Events as disclosed in Barritz are wholly different from instances. An instance may be a structural element of a computer program. For example, a low-level instance may refer to an executable file, library file, or a function within such files. An event in Barritz involves the invocation of a particular command, such as, for example, the aforementioned write file. Barritz may track each occurrence of the invocation of the write file command as an event, and thus, may only have data for the write file command if an event involving the write file command occurs. If no such command occurs, there will be no event data involving the write file command in the data produced by Barritz. Unlike an event, a low-level instance is a structure that may be tracked independently of an event. If a program contains a specific low-level instance, for example, writefile.exe, and during the course of running the program writefile.exe is called 0 times, data will still be gathered on writefile.exe because it is an instance, not an event. Events in Barritz may only be used to gather data on what happens during the running of a program. Instances may be used to gather data on both what does and does not happen to each instance during the running of a program. Therefore, events as described in Barritz are wholly different from instances, and Barritz does not disclose or suggest “a data engine adapted to identify profile data corresponding to low-level instances of a software application.” Claim 1 is therefore allowable over Barritz.

Claims 2-4, 6 and 8 are allowable for at least being dependent on the allowable claim 1.

Claim 9 recites “mapping profile data of a software application to low-level instances of the software application.” For the same reasons stated above, Barritz does not disclose or suggest the use of low-level instances. Barritz appears to suggest creating path maps based on events that occur during the running a program, not low-level instances. Claim 9 is therefore allowable over Barritz.

Claim 11 is allowable for at least being dependent on the allowable claim 9.

Claim 12 recites “selecting at least one model to analyze the profile data, the at least one model having top-level instances.” For the same reasons as stated above, Barritz does not disclose or suggest the use of top-level instance. A top-level instance may be a component of a program that has a higher abstraction level than the low-level instances, and may be composed of various lower-level instances. For example, a top-level instance may be the operating system. Again, Barritz

appears only to disclose the use of events, which are wholly different from instances. Claim 12 is therefore allowable over Barritz.

Claims 13-16 are allowable over Barritz for at least being dependent on allowable claim 12.

Claim 17 corresponds to claim 9, as noted in the Office Action on page 17. Claim 17 is therefore allowable over Barritz for the same reasons as stated above for claim 9.

Claim 19 is allowable over Barritz for at least being dependent on allowable claim 17.

Claim 20 corresponds to claim 12, as noted in the Office Action on page 17. Claim 20 is therefore allowable over Barritz for the same reasons as stated above for claim 12.

Claims 21-24 are allowable over Barritz for at least depending on allowable claim 20.

***Rejections under 35 U.S.C. § 103(a)***

Claims 5, 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barritz in view of US Pat. No. 5,960,419 (Fagg, III). Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barritz in view of US Pat. No. 6,519,766 (Ben-Romdhane). Applicant respectfully traverses the rejections.

The rejection of claim 5 incorporates the rejection of claim 1. Claim 1 is allowable over Barritz as stated above. Therefore, claim 5 is allowable over Barritz in view of Fagg, III, for at least being dependent on allowable claim 1.

The rejection of claim 10 incorporates the rejection of claim 9. Claim 9 is allowable over Barritz as stated above. Therefore, claim 10 is allowable over Barritz in view of Fagg, III, for at least being dependent on allowable claim 9.

The rejection of claim 18 is based on the rejection of claim 10. Claim 10 is allowable over Barritz in view of Fagg, III as stated above. Therefore, claim 18 is allowable over Barritz in view of Fagg, III.

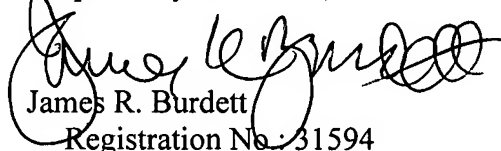
The rejection of claim 7 incorporates the rejection of claim 6. Claim 6 is allowable over Barritz, as stated above. Therefore, claim 7 is allowable over Barritz in view of Ben-Romdhane for at least being dependent on allowable claim 6.

***Conclusion***

All of the stated grounds of rejection have been properly traversed. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

Dated: June 20, 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read "James R. Burdett", is written over a circular stamp. The signature is fluid and cursive.

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